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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,823	01/17/2002	William J. Colucci	7391/72568	5347
42798	7590	12/07/2004		
FITCH, EVEN, TABIN & FLANNERY P. O. BOX 65973 WASHINGTON, DC 20035				
			EXAMINER TOOMER, CEPHIA D	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/046,823

Applicant(s)

COLUCCI ET AL.

Examiner

Cephia D. Toomer

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1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This Office action is in response to the amendment filed September 13, 2004 in which claims 1-6, 8-11, 13, 18, 19 and 24-28 were amended and claims 30 and 31 were amended.

The rejections of the claims over Buckley, Mohr and Mohr in view of EP 878532 are withdrawn in view of the amendments to the claims and applicant's argument.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 3, 18, 19 and their dependent are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the rejected claims, the terms "polyalkene radical" are indefinite. A radical is defined as any atom or molecular that has an unpaired electron. In the instant case, the polyalkene is an unreacted compound.

3. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 is rejected because it is not clear if the unreacted PIB is present in the final additive concentrated. Clarification and correction are required.

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4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 3, 30 and their dependents are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant has amended the claims to recite a polyisobutyl-cresol wherein the number average molecular weight of the polyisobutyl-cresol is about 208. Example 2 is where applicant finds support for the molecular weight. However, it is obvious from the teachings of the specification that only the polyisobutyl radical has a molecular weight of 208. Cresol has a molecular weight of about 108. That means that the PIB radical must have a molecular weight of about 100. However, this cannot be because throughout the specification and original claims R, which would be the polyisobutyl radical, must have a number average molecular weight of from about 200 to about 5,000. Given the above information the PIB-cresol moiety could not possibly have a number average molecular weight of about 208.

6. Claims 3, 30 and 31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably

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convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification does not support a number average molecular weight of about 208 for polyisobutylene (claims 3, 30 and 31) nor does it support an unreacted polyisobutyl radical having a number average molecular weight of about 325. These molecular weights were taken directed form Sample B wherein the PIB radical has a number average molecular weight of 208 and the unreacted PIB has a number average molecular weight of 325. These weights are exact and not approximate. By amending the claims to read about 208 and about 325, Applicant has broadened the parameters for this very specific sample.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 5-8, 11-13, 15-17 and 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Stayner (US 2,786,745).

Stayner teaches a fuel oil composition comprising a mixture of predominantly

oil-soluble polyoxyalkylene ethers of alkyl phenols (see col. 1, lines 15-31; col. 2, lines 56-69). The compounds are prepared by alkylating phenol with an olefin containing 10-20 carbon atoms, such as those obtained by polymerizing straight and branched butylenes. Olefins containing 20 C atoms meet the limitation regarding the molecular weight of the claimed R group. The alkyl phenols produced in the alkylation process are then adducted with 8-40 moles of an alkylene oxide such as ethylene, propylene or butylene (see col. 3, lines 7-26). Stayner teaches that water is removed from the resultant product as well as a part of the unreacted olefin (see col. 3, lines 49-71). This teaching of unreacted olefins anticipates component (ii) of the present invention. The fuel may be furnace oils, burner oils, diesel fuels and jet fuel (see col. 1, lines 25-31; col. 9, line 72 through col. 10, lines 1-2). Stayner teaches that the additive is present in the fuel in an amount of 1% by weight or less (see col. 10, lines 3-8). The composition may contain fuel additives (see col. 8, lines 32 through col. 9, lines 1-28).

Accordingly, Stayner teaching all the limitations of the claims anticipates the claims.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2, 6, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stayner (US 2,786,745).

Stayner has been discussed above. Stayner fails to teach that the polyalkene is polyisobutyl derived from isobutene and up to about 20% by weight of n-butene. However, the patentability of a product does not depend on its method of product. If the product in the product – by – process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art was made by a different process. *In re Thorpe* 227USPQ964 (Fed. Cir. 1985). In the instant case, Stayner teaches that the polyalkene is derived from polymerized butylenes.

In the second aspect, Stayner fails to teach that the alkylene oxide is 1, 2 propylene, 1, 2-butylene or 1, 4 butylene. However, no unobviousness is seen in this difference because Stayner teaches the generic oxides of ethylene, propylene and butylenes and this teaching suggest the isomers of these alkylene groups.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

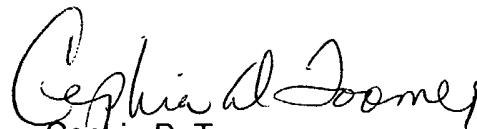
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Cephia D. Toomer
Primary Examiner
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